

CLAIMS

1. A method for evaluating packets and frames in a wireless communication system having a burst oriented channel, and a corresponding rate indicator channel, the method comprising:
 - monitoring the rate indicator channel; and
 - determining the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder.
2. The method of claim 1 wherein determining the presence of a packet is performed at predetermined intervals.
3. The method of claim 2 wherein the interval is a subframe interval.
4. The method of claim 2, further comprising determining the validity of a frame.
5. The method of claim 4 wherein determining the validity of a frame comprises analyzing the packet if the packet is detected.
6. The method of claim 5 wherein analyzing the packet further comprises determining if the packet is a zero-rate packet, and analyzing a sub-packet ID and a payload if the packet is not a zero-rate packet.
7. The method of claim 6 wherein analyzing the packet further comprises decoding information on the burst oriented data transmission channel using the packet if the sub-packet ID and payload are not expected.
8. The method of claim 5 wherein analyzing the packet comprises comparing a sub-packet ID and a payload size of the packet to sub-packet IDs and payload sizes of previous packets.
9. The method of claim 5 wherein analyzing the packet further comprises comparing the packet with an expected packet type if the packet is a zero-rate packet.

10. The method of claim 9 wherein analyzing the packet further comprises detecting energy on the burst oriented data channel if the packet matches the expected packet type.
11. The method of claim 4 wherein determining the validity of a frame further comprises detecting energy on the burst oriented channel if there is no packet on the corresponding rate indicator channel and no packet was expected.
12. A system for evaluating packets and frames in a wireless communication system, comprising:
 - a base station; and
 - a mobile station coupled to the base station via a wireless communication link; wherein the base station is configured to receive data from the mobile station on
 - a plurality of reverse-link channels on the wireless communication link including a burst oriented channel, and a corresponding rate indicator channel; and
 - wherein the base station is configured to monitor the rate indicator channel and determine the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder.
13. The system of claim 12 wherein the presence of a packet is determined at predetermined intervals.
14. The system of claim 13 wherein the interval is a subframe interval.
15. The system of claim 13, wherein the base station is configured to determine the validity of a frame.
16. The system of claim 15 wherein the base station is configured to determine the validity of a frame by analyzing the packet if the packet is detected.

17. The system of claim 16 wherein the base station is configured to analyze the packet by determining if the packet is a zero-rate packet, and analyzing a sub-packet ID and a payload if the packet is not a zero-rate packet.

18. The system of claim 17 wherein the base station is further configured to analyze the packet by decoding information on the burst oriented data transmission channel using the packet if the sub-packet ID and payload are expected.

19. The system of claim 16 wherein the base station is configured to analyze the packet by comparing a sub-packet ID and a payload size of the packet to sub-packet IDs and payload sizes of previous packets.

20. The system of claim 16 wherein the base station is configured to analyze the packet by comparing the packet with an expected packet type if the packet is a zero-rate packet.

21. The system of claim 20 wherein the base station is configured to analyze the packet by detecting energy on the burst oriented channel if the packet matches the expected packet type.

22. The system of claim 15 wherein the base station is further configured to determine the validity of a frame by detecting energy on the burst oriented channel if there is no packet on the corresponding rate indicator channel and no packet was expected.

23. A base station operable to communicate with a mobile station via a wireless communication channel, wherein the base station comprises:

- a processing subsystem; and

- a transceiver subsystem coupled to the processing subsystem;

- wherein the transceiver subsystem is configured to receive signals on a plurality of reverse-link channels on the wireless communication link including a

- burst oriented channel, and a corresponding rate indicator channel; and

- wherein the base station is configured to monitor the rate indicator channel and

determine the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder.

24. The base station of claim 23 wherein the presence of a packet is determined at predetermined intervals.
25. The base station of claim 24 wherein the interval is a subframe interval.
26. The base station of claim 24, wherein the base station is configured to determine the validity of a frame.
27. The base station of claim 26 wherein the base station is configured to determine the validity of a frame by analyzing the packet if the packet is detected.
28. The base station of claim 27 wherein the base station is configured to analyze the packet by determining if the packet is a zero-rate packet, and analyzing a sub-packet ID and a payload if the packet is not a zero-rate packet.
29. The base station of claim 28 wherein the base station is further configured to analyze the packet by decoding information on the burst oriented data transmission channel using the packet if the sub-packet ID and payload are expected.
30. The base station of claim 27 wherein the base station is configured to analyze the packet by comparing a sub-packet ID and a payload size of the packet to sub-packet IDs and payload sizes of previous packets.
31. The base station of claim 27 wherein the base station is configured to analyze the packet by comparing the packet with an expected packet type if the packet is a zero-rate packet.
32. The base station of claim 31 wherein the base station is configured to analyze the packet by detecting energy on the burst oriented channel if the packet matches the expected packet type.

33. The base station of claim 26 wherein the base station is further configured to determine the validity of a frame by detecting energy on the burst oriented channel if there is no packet on the corresponding rate indicator channel and no packet was expected.